

Translation

PATENT COOPERATION TREATY

PCT/EP2003/009173



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P112628/WO/1	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/009173	International filing date (<i>day/month/year</i>) 19 August 2003 (19.08.2003)	Priority date (<i>day/month/year</i>) 23 August 2002 (23.08.2002)
International Patent Classification (IPC) or national classification and IPC B01D 39/00		
Applicant DAIMLERCHRYSLER AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>1</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 17 March 2004 (17.03.2004)	Date of completion of this report 01 December 2004 (01.12.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/009173

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-6 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____ 2-14 _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1 _____, filed with the letter of _____ 28 October 2004 (28.10.2004)
- ☒ the drawings:
pages _____ 1/1 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 03/09173

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-14	YES
	Claims		NO
Inventive step (IS)	Claims	1-14	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: GB 721 592 A (R.J. STEVENS) 12 January 1955
(1955-01-12)

D2: PATENT ABSTRACTS OF JAPAN Vol. 9, No. 166,
11 July 1985 (1985-07-11) & JP 60 038014 A
(TORAY KK), 27 February 1985 (1985-02-27)

D3: US-A-5 543 046 (C.J.M. VAN RIJN) 6 August 1996
(1996-08-06)

D4: US-A-5 510 194 (J.B. HENDRICKS ET AL)
23 April 1996 (1996-04-23)

D5: WO 00/38823 A (MORPHOMETRIX TECHNOLOGIES)
6 July 2000 (2000-07-06)

1. Claim 1 includes the term "wafer", but this word does not appear to be clearly defined in German (PCT Article 6). However, for the present examination, it is assumed that "wafer" means the less than 100 μm -thick discs of high-grade silicon and/or germanium which are used in the semiconductor industry and on which electronic components, especially integrated circuits, are produced by various technical processes. Clarification would therefore appear

necessary (PCT Article 6 and PCT Rule 6.3). The subject matter of claim 9 appears suitable for clarifying claim 1 (PCT Rule 6.3(a)) [See point 3 below].

- 1.1 The subject matter of claim 2 is unclear since it does not specify unambiguously which discernible features are left on the end product by an etching process or structured deposition as microstructuring processes (PCT Article 6). Reference is also made to the PCT Search and Examination Guidelines paragraphs 5.26 and A5.26[1] (25 March 2004).
2. It is known to produce filters for removing particles from the air by microstructuring processes (e.g. etching processes) [see e.g. D4, column 3, lines 44 to 64]. Other filters, produced by etching, are known *inter alia* from D1, D3 and D5. The filters according to D1, D3, D4 and D5 all have pores in the μm range.
- 2.1 However, the citations do not disclose the use of wafers as filters substrates (PCT Article 33(2)).
3. Depending on the definition of "wafers", their use in air filters appears to have various advantages [pages 4 and 5 of the description] (PCT Article 33(3)).
- 3.1 On the other hand, if the term "wafer" is considered to be any substrate, then the feature appears to have no special effect (PCT Article 33(3)). The stacking of a plurality of layers is certainly known *per se* [see D1, e.g.].

3.2 Therefore the recognition of inventive step is based on a narrow interpretation of the definition [see point 1 above].

4. The invention clearly has industrial applicability (PCT Article 33(4)).